

roadside near Coldharbour Farm, Wye. M. Henry W. Böleemann was kind enough to identify the species for me in the first instance, and I tender him my best thanks.

The original description was as *Strongylosoma italicum*, Latzel, 1886, Bull. Ent. Ital. xviii. p. 308.

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6th January, 1922.

XXIV.—*A Preliminary Note on some new Nematode Parasites from the Elephant.* By M. KHALIL, M.D., D.P.H., D.T.M. & H.*

PTERIDOPHARYNX, Lane, 1921.

Pteridopharynx anisa, sp. n.

Male is 14-15 mm. long and 0.46 mm. in breadth.

Female is 16.5-17 mm. in length and .65 mm. in breadth.

Cuticle is striated. External leaf-crown consists of about 20 leaflets. There are 4 head-papillæ. Mouth-capsule pear-shaped. Œsophagus is .45-.57 mm. in length. The

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nerve-ring is .25 mm. from head-end. Bursa has a very long dorsal lobe indistinctly separated from the lateral lobes. Dorsal ray divides into two. The dorso-lateral ray is bifid near its end. The two spicules are equal, .82 mm. long, curved near the tip. Accessory piece is .13 mm. The female tail is .52 mm. The vulva is placed .12 mm. in front of the anus.

Hab. Intestine of the African elephant, Uganda.

MEMPHISIA, gen. nov.

Slender Nematodes with a ring-shaped mouth-capsule. Mouth-opening surrounded by a leaf-crown. There is a cuticular expansion just below the head forming a ring. Bursa elongated and divided into three lobes. The middle lobe is longer than the lateral lobes. The dorsal ray divides into two. The dorso-lateral ray gives a small branch about its middle nearly at right angles to its course.

Type-species, *Memphisia memphisia*.

Memphisia memphisia, sp. n.

Male is 13.5-14 mm. long and .55 mm. in breadth.

Female is 14.5-16 mm. long and .55 mm. in breadth.

Cuticle is striated. The cuticular collar is large. There are 4 head-papillæ. External leaf-crown consists of about 17 leaflets. The mouth-capsule is broader than it is long. Œsophagus is broad and short, .48 mm. in length. Nerve-ring is .25 mm. from head. Bursa is shorter than in the next species. The two spicules are slender, bent dorsally at end. They are .9 mm. in length. Accessory piece is .1 mm. in length. The tail of the female tapers sharply. It is .58 mm. in length. The vulva lies close in front of the anus.

Hab. Intestine of African elephant, Uganda.

Memphisia aziza, sp. n.

Male is 12 mm. in length and .5 mm. in breadth.

Female is 15 mm. in length and .5 mm. in breadth.

Cuticle is striated. There are 4 head-papillæ. External leaf-crown consists of 20 leaflets. Mouth-capsule is longer than it is broad. Œsophagus is short and broad, and is .4 mm. in length. The nerve-ring is placed .2 mm. from the head. The bursa is longer than that of *M. memphisia*. The

two spicules are .75 mm. in length. Accessory piece is .1 mm. in length. The tail of the female is .66 mm. The vulva is .25 mm. in front of the anus.

Hab. Intestine of African elephant, Uganda.

MURSHIDIA, Lane, 1914.

Murshidia hadia, sp. n.

Male is 18.5 mm. in length and .67 mm. in breadth.

Female is 24 mm. in length and .82 mm. in breadth.

Cuticle is striated. There are 4 head-papillæ and an external leaf-crown consisting of about 40 rays. Mouth-capsule is globular. Œsophagus is .85 mm. in length. The nerve-ring is placed .6 mm. from the head-end. The bursa is short and broad. The rays have irregular prominences at their origin. The dorsal ray divides into 6 branches nearly equal in length. The spicules are equal and stout. The tip is rounded and bent dorsally. They are 1.1 mm. in length. The female tail is slender and is 2.25 mm. in length. The vulva is placed .6 mm. in front of the anus.

Hab. Intestine of African elephant, Uganda.

QUILONIA, Lane, 1914.

Quilonia uganda, sp. n.

Male 11.5-12 mm. in length and .55 mm. in breadth.

Female 16 mm. in length and .64 mm. in breadth.

Cuticle is striated. There are four head-papillæ. The external half-crown consists of 12 leaflets. Mouth-capsule is shallow with two teeth at its floor. Œsophagus is .52 mm. to .62 mm. in length. Bursa is short and indistinctly divided into three lobes. The dorsal ray is slender and divides into two divisions, each of which ends in three fine rays unlike those of *Q. africana*. The spicules are equal and .72 mm. in length. Accessory piece is .1 mm. in length. Tail of female is 2.43 mm. in length, and the vulva is placed 2.77 mm. in front of the anus.

This species differs from *Q. apiensis*, Geddoelst, 1916, principally in the length of the spicules. In *Q. apiensis* they are .944 mm. in length.

Hab. Intestine of African elephant, Uganda.

LEIPERENIA, GEN. NOV.

Minute nematode just visible to the naked eye. Head surrounded by more than six small lips. Mouth-capsule is absent. There is a short muscular pharynx placed on top of an elongated thin œsophagus. Tail is simple, non-bursate. The male has two unequal spicules and an accessory piece. Female is viviparous. Embryos reach an advanced stage of maturity within the parent worm. There is a cuticular expansion round the anterior part of the body. Cuticle is striated.

Type-species, *L. leiperi*, from the African elephant.

Leiperenia leiperi, sp. n.

Male is 3·8 mm. long and ·2 mm. in breadth.

Female is 3·9 mm. in length and ·21 mm. in breadth.

It has the character of the genus. There are about 8 conical processes projecting from the anterior end of the pharynx. Pharynx is ·083 mm. long and ·06 mm. in breadth. Œsophagus is ·38 mm. in length. Excretory vesicle is large, and its opening is surrounded by striated margin. The long spicule of the male is ·3 mm. and the short is ·19 mm. The accessory piece is ·09 mm. The tail of the male is ·38 mm. The tail of the female is ·7 mm. and tapers to a sharp point. Vulva is placed a little distance in front of the anus.

Hab. The intestine of the African elephant, Uganda.

Leiperenia galebi, sp. n.

Male is 3·25 mm. in length and ·17 mm. in breadth.

Female is 3·8 mm. in length and ·18 mm. in breadth.

The pharynx is ·14 mm. in length and ·1 mm. in breadth, and carries about 8 conical processes on its top. Œsophagus is long and thin, ·4 mm. in length. Excretory pore is large and has striated margin, and is placed 1·2 mm. from the head. The long spicule measures ·25 mm., the short one ·13 mm., and the accessory piece ·13 mm. The tail of the male is ·43 mm., and is blunt at the end. The tail of the female is much shorter than in the above species, and is ·53 mm. in length. The vulva is placed a short distance in front of the anus.

Hab. Intestine of the Indian elephant.

The material on which this communication is based was collected by Professor R. T. Leiper in Uganda in 1907, when he was a member of the Egyptian Government Expedition. They were kindly submitted to me for examination by him. The last species was collected from an Indian elephant that died in the London Zoological Gardens.

This communication will be followed later by a detailed description with diagrams.

MISCELLANEOUS.

The 'Zoological Record.'

To the Editors of the 'Annals and Magazine of Natural History.'

DEAR SIRS,—I should be glad if you would draw the attention of your readers to the present position of the 'Zoological Record.'

Owing to the collapse of the International Catalogue of Scientific Literature, in connection with which the 'Record' was published from 1906 to 1914, the Zoological Society of London has undertaken to bear the whole financial responsibility for the preparation and printing of the 'Record.'

Owing to the great increase of the cost of printing and to the very meagre support accorded to the 'Record' by zoologists and zoological institutes generally, the financial burden of this undertaking on the Zoological Society is becoming very severe. The cost of printing the 'Record' now amounts to between £1500 and £2000 annually, and the Society receives back by subscribers and sales less than 25 per cent. of this sum: I fear, therefore, unless zoologists are prepared to make greater efforts to support the undertaking, there is a strong possibility that the Council of the Zoological Society may refuse to find this large sum each year.

It appears, therefore, to be the duty of every zoologist to help, so far as he is able, to support this most invaluable work. All particulars and forms of subscription can be obtained from the Secretary of the Zoological Society, Regent's Park, London, N.W. 8; but I may mention that the price of the whole volume is now £2 10s., and the price of the separate parts a proportional smaller sum.

Yours faithfully,

W. L. SCLATER,

Editor 'Zoological Record.'

Jan. 17th, 1922.